

Fuel Tax Forecast Models Work Group Overview

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**Joint Transportation Committee
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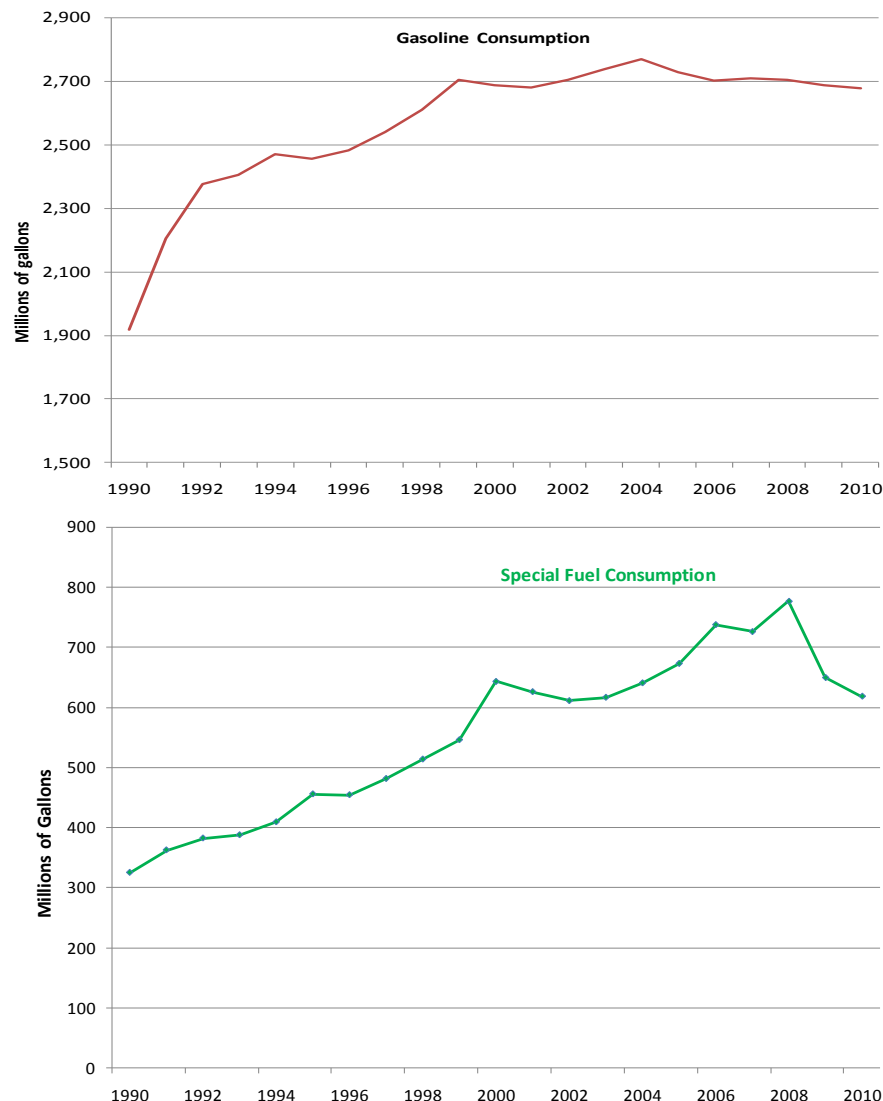
Fuel Tax Forecast Model

- Transportation Revenue Forecast Council adopts a fuel tax forecast (both gas and diesel) four times per year.
- Gas and diesel consumption forecasts set the fuel tax revenue projections.
- The current gas consumption model relies primarily on consumption history back to 1972, oil prices, and to a small degree vehicle fuel efficiency.
- The current diesel consumption model considers economic activity (personal income) and consumption history back to 1972.

Recent Trends in Fuel Consumption

- Recent Trends in Washington **Gas** Consumption:
 - From 1990-2000, there was moderate growth in consumption (avg. 4% per yr).
 - Since 2000, gas consumption has been very flat (avg. -0.04% per yr).
 - During recent recession, gas consumption has declined only minimally.
- Recent Trends in Washington **Special Fuels (Diesel)** Consumption:
 - From 1990-2000, diesel consumption grew significantly (avg. 7.2% per yr).
 - Since 2000, diesel consumption has been volatile (avg. -0.1% per yr).
 - During recent recession, diesel consumption has declined significantly & consecutively for 2 years.

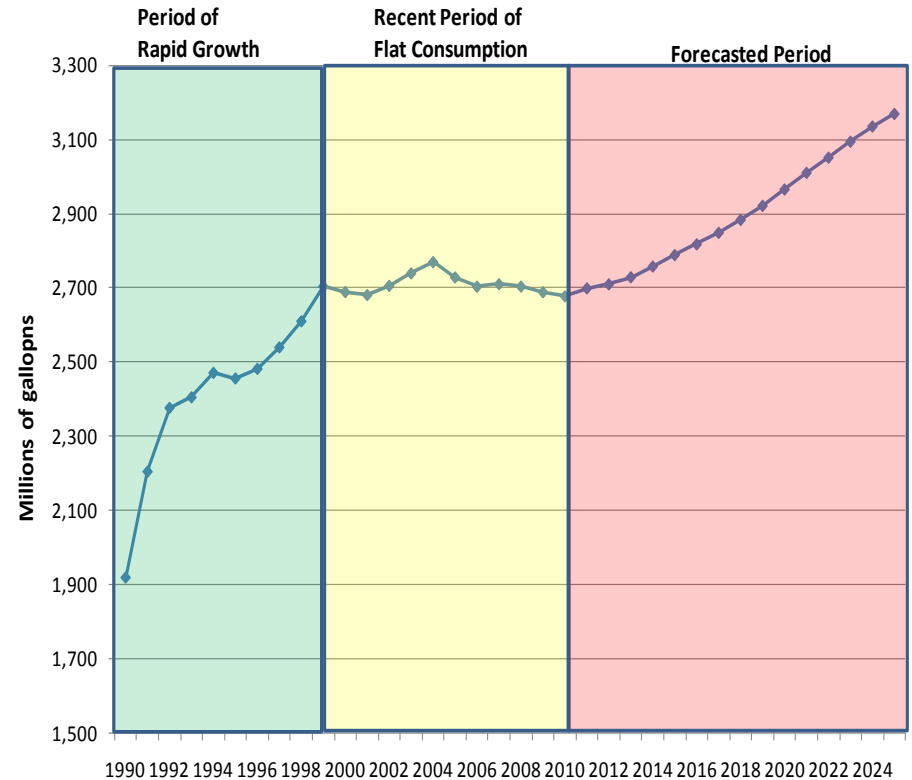
History of Fuel Consumption Since 1990



Gas Consumption Forecast - Recent Trends and Future Projections

Gas Consumption Since 1990 + September Forecast

- September 2010 Washington **Gas** Consumption Forecast:
 - FY2011-13: annual growth rate average is 0.7% per yr.
 - All subsequent years: annual growth rate is between 1-2% (avg. 1.3% per yr).

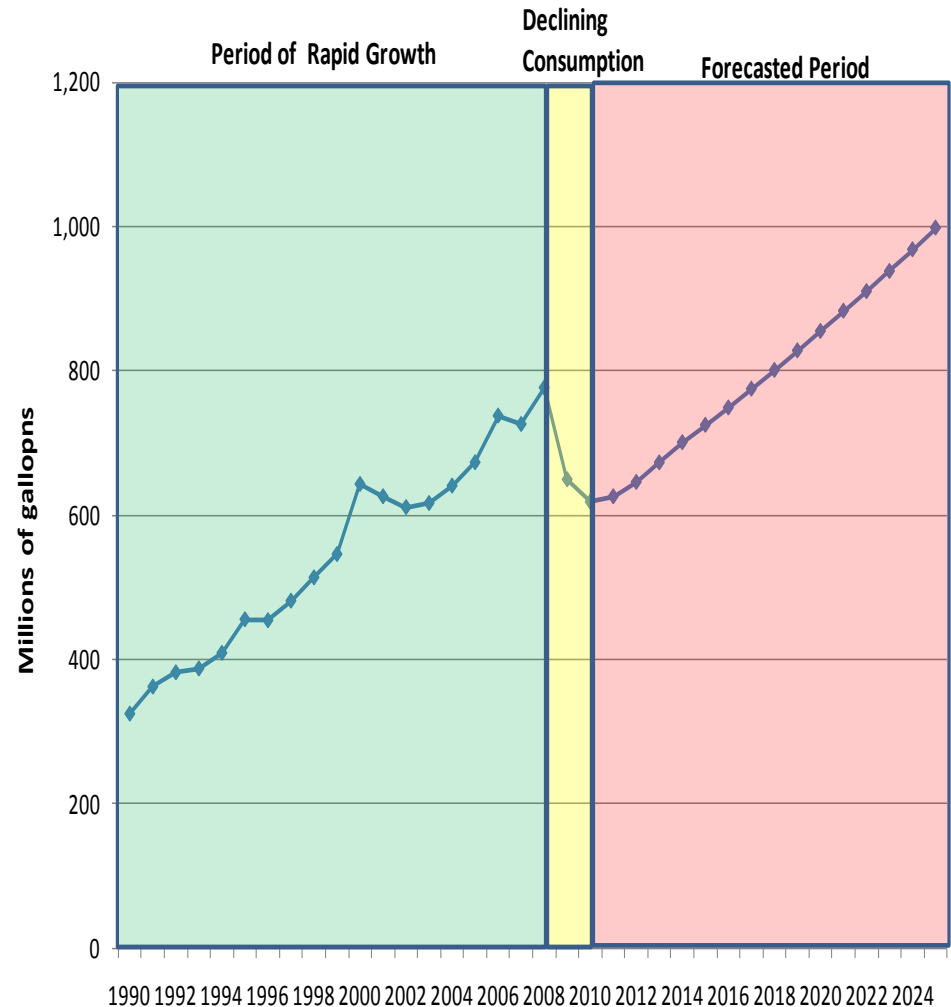


There is a disconnect between future consumption model growth rates and the most recent 10 year history.

Diesel Consumption Forecast - Recent Trends and Future Projections

Diesel Consumption Since 1990 + September Forecast

- September 2010 Washington **Diesel** Consumption Forecast:
 - From 1990-2000, diesel consumption grew significantly (avg. 7.2% per yr).
 - Since 2000, diesel consumption has been volatile (avg. -0.1% per yr).
 - During recent recession, diesel consumption has declined significantly & consecutively for 2 years.



New Consumption Forecast Models Needed

- Performance of the gas consumption model has been poor; consistently overestimating gas consumption
 - Since 2000, gas consumption has been very flat, -0.1% average growth per year
 - Current model is overly reliant on a single economic indicator – US oil price index
- Gas consumption forecasts have been reduced in the past, but without a new modeling approach, forecasts will continue to overestimate future fuel consumption.
- JTC Long-term Funding Study outlined risks to fuel tax revenues.

2010 Fuel Consumption Forecast Models Review Process

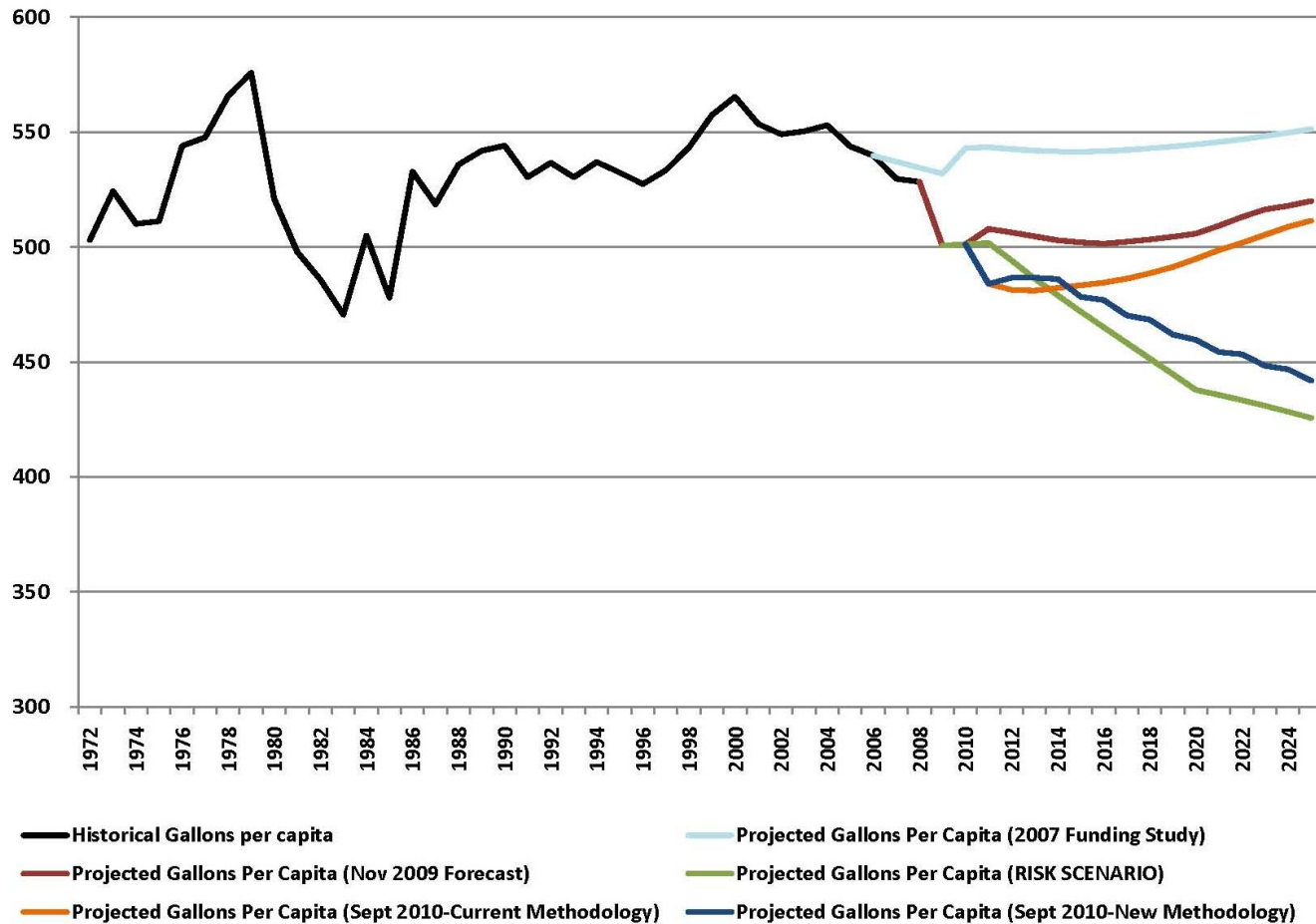
- In spring 2010, a work group was formed consisting of Transportation Revenue Forecast Council members to review fuel consumption forecast models
 - WSDOT
 - OFM Forecasting and Budget Division Staff
 - Office of Forecast Council
 - Department of Licensing
 - Legislative Transportation Committee Staff
- The work group surveyed other states' fuel consumption forecast models and reviewed dozens of gas consumption models.

Results: Recommend New Gas & Diesel Consumption Forecast Models

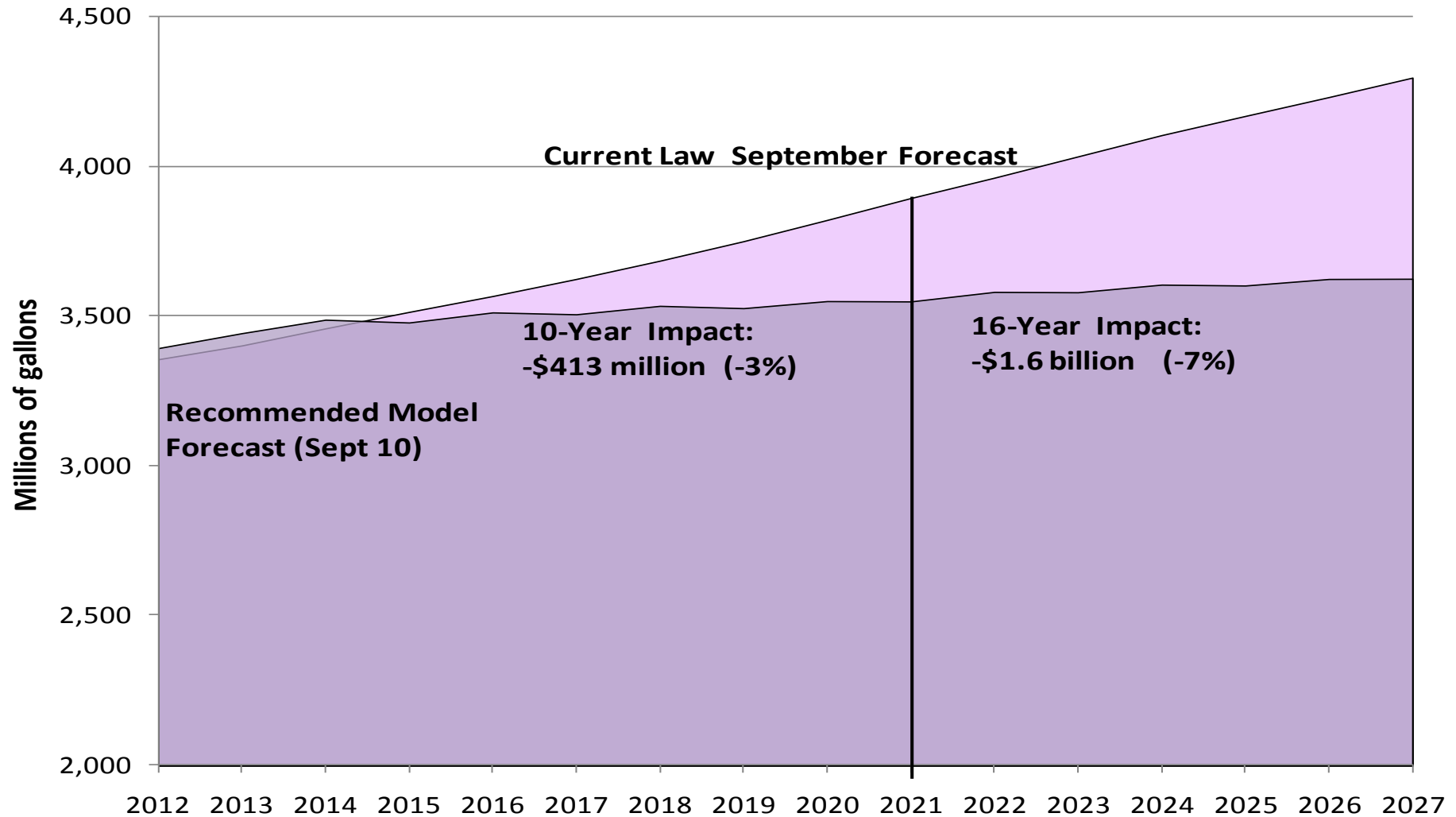
- Less dependence on a single economic indicator
 - Gas incorporates employment, fuel efficiency, gas prices, and population
 - Diesel incorporates WA employment in trade, transportation and utilities sectors and WA real personal income
- Utilize both long- and short-term models
 - Better short- and long-term accuracy
 - More stability in the long-term forecast

Extension of JTC Long-term Funding Study

Historical and Projected Gas Gallons Per Capita



Fuel Forecast Comparison (Gas and Diesel) September 2010 vs New Model Approach



Process for Implementing New Fuel Consumption Forecast Models

- Fuel consumption forecast model work group has completed meeting and discussing alternative fuel consumption models.
- New models have been incorporated into November 2010 quarterly forecast assumptions.
- November 2010 Transportation Revenue Forecast Council will meet on November 18th to adopt the forecast.

Questions?

If you have questions, or want additional information on the Fuel Tax Model changes, please contact:

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